



August 4, 2006

**Ms. Linda Bluestein**  
Regulatory Manager, EPAct Program  
U.S. Department of Energy, FCVT  
Mailstop EE-2G, Room 5F-034  
1000 Independence Ave., SW  
Washington, DC 20585-0121

RE: RIN 1904-AB66: Alternative Compliance

Dear Ms. Bluestein:

The California Electric Transportation Coalition (CalETC) is pleased to provide the following comments on the above-referenced docket. These written comments update our verbal comments provided at the July 12 public workshop, during which DOE provided extensive additional clarification and information beyond what is provided in the NOPR. Our recommendations and comments are based on the program that appeared to be emerging after the public workshop.

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**We support DOE's efforts to develop an alternative compliance program, and commend staff for specific improvements and clarifications discussed at the public workshop.**

CalETC strongly supports the concept of an alternative compliance program, as essentially delineated in RIN 1904-AB66. We commend DOE staff for doing an excellent job crafting a draft proposed rule that seems to be fair, flexible and focused on achieving equivalent or better petroleum displacement. We are especially pleased and supportive of certain clarifications that emerged during the public workshop, which we have summarized below:

- DOE is open to inclusion of non-road vehicles in waiver program applications, as long as certain requirements and caveats are met (discussed further, below).
- DOE staff's goals include improving the waiver program over time through the use of standardization. As an initial step, DOE will provide links to standardized data from government websites.
- Waiver applicants can use this type of standardized data to determine fuel economy ratings for planned LDV purchases (e.g., using 55 mpg from [www.fueleconomy.gov](http://www.fueleconomy.gov) for a Toyota Prius HEV, as in Ms. Bluestein's example on "Option C" slide).
- DOE recognizes that not all fleets currently track or isolate petroleum usage for their LDVs. Therefore, DOE will be flexible as to the methodology individual fleets employ to make this initial estimate.

- DOE acknowledges that fleets may not have all necessary information by March 31 of the waiver year to file a complete application. DOE is open to a system where fleets could submit a “pre-plan” by March 31, followed by a firm plan on or before July 15. DOE would then approve the plan within 45 days.

**We recommend greater standardization of inputs and outputs for the waiver path.**

CalETC recommends that DOE incorporate as much standardization as possible into the waiver program, while still allowing flexibility for compliance paths. CalETC believes that greater standardization of inputs and outputs for the waiver application process will:

- Normalize all applications to common terms, while still providing flexibility in compliance approaches
- Assist fleets in deciding if they should pursue conventional compliance or a waiver path for EPCa requirements
- Reduce DOE’s administrative burden to review and verify applications
- Help avoid challenges by fleets regarding inequity or unfairness

Some of our specific recommendations for DOE to consider and implement (over time, as feasible) are:

- Adapt existing EPCa reporting Form DOE/FCVT/101 into a useable template for fleets to develop, calculate and submit their waiver applications
- Add new reporting fields and calculations as described in NOPR examples
- Include standardized, generic AFV choices (one LDV and one LDT) to serve as baseline “avoided” AFV purchases, with default values for assumptions on annual fuel usage
- Provide and require standardized fuel economy factors for LDVs used in baseline report and waiver plans
- Provide examples of potentially viable and quantifiable “waiver” options (e.g., purchase and deploy a light-duty HEV or medium-duty NGV)
- Assist applicants with critical calculations, such as estimating baseline petroleum usage in the LDV fleet, determining petroleum reductions from specific waiver options, and calculating total equivalent petroleum reductions in the vehicle fleet

To assist DOE in this process to incorporate greater standardization, CalETC is offering to provide a draft copy of the MS-Excel-based “waiver calculator” developed by TIAX. While not a finished product, this calculator is a working model that is populated with a wide variety of standardized

“waiver options” (based on 2006 model year vehicles). In addition to assisting fleets to estimate and establish their best options for achieving equivalent petroleum displacement, this tool can assist fleet managers with making the “most green” procurement choices based on criteria pollutant and greenhouse gas emissions. In so doing, this tool would assist fleet managers and the Department in furthering the broad purposes of EPCA to encourage new technology and environmental improvement. This calculator would help fleets compare the wavier “path” with the conventional EPCA credit “path,” including comparing individual technologies and vehicles under each option. CalETC would be pleased to work with DOE further on this, if helpful.

**We recommend that DOE allow fleets to achieve equivalent, *verifiable* petroleum displacement in applications involving non-road vehicles.**

Spirit and Intent of EPCA 1992

First, we urge DOE to consider the big picture when determining if non-road vehicles fall within an alternative compliance program. Non-road vehicles such as forklifts are integral parts of a utility’s transportation fleet. Whether transporting people or materials, these vehicles are major contributors to the total amount of petroleum fuels consumed within such fleets. They also are high emitters of criteria pollutants and greenhouse gases.

At the DOE workshop on the NOPR, DOE staff indicated they were receptive to allowing forklifts to be included as a compliance mechanism under the final rule. CalETC strongly believes that the final rule should permit fleets to include non-road vehicles such as fleet forklifts in their petroleum reduction plans under section 490.803(d). The intent of the waiver program is to allow flexibility in the means used by fleets to achieve the objective of reduced petroleum use. By allowing non-road vehicles such as forklifts to qualify under the waiver program, DOE will further the twin goals of flexibility in the program and petroleum displacement that motivated Congress to include section 703 in the Energy Policy Act of 2005. Fleets will be encouraged to obtain quantifiable and real petroleum reductions by converting gasoline and diesel forklifts and other non-road vehicles to alternative fueled non-road vehicles.

In promulgating the regulations for the fuel provider and state fleet programs in 1996, DOE made the policy decision to allow medium and heavy duty vehicles to generate credits toward compliance. The basis for that determination is equally applicable to nonroad vehicles here. DOE found that medium and heavy duty vehicles could “take advantage of the anticipated fueling infrastructure” for alternative fuels. 61 *Fed. Reg.* 10644. In addition, DOE recognized that such vehicles have the potential to result in “increased displacement of petroleum-based fuel and greater energy security.” *Id.* Those attributes also apply to the replacement of petroleum fueled non-road vehicles with alternatively fueled non-road vehicles. DOE similarly should assure that those benefits are captured in the waiver program by expressly providing for the eligibility of alternatively fueled forklifts.

Potential for Significant, Verifiable Petroleum Reductions in Non-Road Vehicles

The real issue is: *can fleets subject to EPCA achieve verifiable, equivalent (or better) petroleum displacement from their non-road vehicles?* As TIAX’s presentation indicated, non-road vehicles

such as ICE forklifts offer very viable, verifiable options for fleets to displace large quantities of petroleum fuels. Conservatively, we estimate the following:

One electric forklift that replaces a diesel forklift in a typical utility fleet application displaces at least 6,600 gallons of diesel fuel over its lifetime of 11 years. A typical light-duty AFV in a utility fleet displaces about 2,650 gallons of gasoline over an average lifetime of about 5 years. Thus, the electric forklift option displaces about three times as much petroleum fuel over the vehicle's useful life.

Extensive discussion occurred about this issue at the Public Workshop, and DOE staff expressed an openness to consider non-road vehicles as part of a fleet's waiver application. We agree with DOE's staff's preliminary thinking expressed at the workshop that the following conditions should apply:

1. Non-road vehicle applications under a waiver application should clearly be shown to obviate the need to purchase a gasoline or diesel forklift.
2. A reasonable link or commonality related to fueling infrastructure should be demonstrated between the non-road vehicle and the fleet's light-duty vehicles.

### **Recommendations**

CalETC notes that the refueling infrastructure for non-road vehicles will be similar to that for motor vehicles, but may vary because the specifications for chargers or fuel dispensers may differ. For example, electric forklifts would use much of the same refueling infrastructure (e.g. transformer, wiring, panel upgrades, trenching, etc) that battery EVs and plug-in HEVs would use at the same fleet location. In addition the voltage and kilowatts of most electric forklifts is the same as that for full size batteries and larger size plug-in HEVs, i.e., 240 Vs and 6 kW. To achieve the petroleum reduction benefits of the use of alternatively fueled fork lifts, DOE should not be overly prescriptive regarding the specific infrastructure that must be used.

We respectfully caution DOE about being overly restrictive on the possible second condition listed above. For example, a fleet that wishes to purchase a new electric forklift will need to purchase a new electrical charger that is purpose-built for the forklift. This charger is unlikely to be useable for recharging existing or future light-duty EVs (including PHEVs) in the fleet. Nonetheless, important synergy exists between these two separate choices to deploy electric-drive vehicles. For example, the fleet owner may need to make panel upgrades to accommodate the electric forklift's new charging station. Such upgrades may help get the recharging infrastructure in place for PHEVs purchased under a waiver compliance path. Moreover, the fleet's expanded use of electricity, battery modules, electric drive systems, and electric components (e.g., motors and controllers) in its non-road fleet will help improve the overall economics for the entire electric-drive fleet. This will encourage greater, more-sustainable displacement of petroleum fuels as intended under EPCA's original statute.

In addition, we believe DOE staff should consider other categories of non-road vehicles as waiver program candidates, as long as they meet the various tests discussed above. Many types of non-road vehicles and equipment that are typically powered by petroleum fuels and internal combustion engines are also commercially available in electric-drive configurations. Examples include truck/transport refrigeration units; tow tractors and industrial tugs; turf trucks; and rider sweepers/scrubbers/burnishers. CalETC would be pleased to provide data to DOE on the achievable petroleum displacement (and emissions reductions) in these vehicle categories.

CalETC recommends that DOE's proposed regulatory language be changed to make it clear that non-road vehicles may be included in a covered person's petroleum reduction plan by modifying section 490.803(d)(1)(ii) to provide that plans must "Involve a reduction in petroleum use by motor vehicles and non-road fleet vehicles owned, operated, leased or otherwise controlled by the State or covered person." Further, section 490.803(d)(2) should be amended to include alternatively fueled non-road fleet vehicles. CalETC recommends the addition of the following language: "For purposes of this section, petroleum reductions attributable to non-road fleet vehicles that use an alternative fuel as defined in section 490.2 and are refueled using infrastructure used to provide fuel to a State or covered person's fleet may be included in a petroleum reduction plan." To achieve the petroleum reduction benefits of the use of alternatively fueled fork lifts, DOE should not be overly prescriptive regarding the specific infrastructure that must be used. We would further recommend that to the extent that the Department retains the requirement that only petroleum reductions that are "transportation-related" may be included in the plans, the Department should clarify that non-road fleet vehicles are "transportation-related."

The inclusion of non-road vehicles as recommended here would be an appropriate exercise of DOE's plenary rulemaking authority. DOE is vested with the administration of the alternative fuel programs established pursuant to Title V of EPCA 1992. The DOE Organization Act authorizes DOE to prescribe rules that are necessary and appropriate to administer and manage these programs. *See* 42 U.S.C. § 7254. CalETC submits that rules which permit the inclusion of alternatively fueled non-road vehicles in petroleum reduction plans would serve the purposes of the Act.

In summary, forklifts and similar non-road equipment are housed in most utility's transportation services or fleet services departments. Since these non-road vehicles can account for significant petroleum use and emissions, we recommend DOE make changes that clarify section 490.803 to allow for the inclusion of non-road vehicles in petroleum reduction plans.

### **We recommend maintaining the technology push spirit and intent of the original EPCA program, so that light duty vehicles are not disadvantaged in this rulemaking**

We believe that a key intent of the original EPCA program was to expedite and sustain commercialization of advanced-propulsion LDVs that simultaneously provide very high fuel efficiency and very low emissions. Additional goals in the 1992 EPCA included "technology forcing" or "technology advancement" of light duty AFVs, reducing green house gas emissions

with light duty AFVs, improving the health of the nations economy, and building a nationwide AFV infrastructure.

The EPAAct waiver program should continue DOE's long-standing efforts to support light-duty automakers in producing AFVs and advanced-propulsion vehicles, as well as early adopters purchasing such vehicles. Perhaps, for example, some type of "extra credit" could be provided to fleets that pursue a waiver path focused on LDVs that achieve very high efficiency and can serve as bridges to non-petroleum, near zero-emissions vehicles. As noted on DOE's website, the long-term aim of the FreedomCar program is to "develop 'leap frog' technologies that will provide Americans with greater freedom of mobility and energy security, while lowering costs and reducing impacts on the environment."

### **We support DOE's interpretation of the term "cumulative."**

We support DOE's interpretation of the term "cumulative" in section 490.802 (a) and section 490.803(d) of the proposed regulations. CalETC believes that the final waiver rule must achieve the same or greater petroleum reductions as the existing alternative fuel vehicle ("AFV") acquisition program. It is our opinion that the language in the proposed rule correctly interprets the intent of section 703 and should result in equal to or greater petroleum reductions than are occurring under the existing fuel providers and state fleet acquisition programs. We believe that "cumulative" essentially means lifetime petroleum reductions from each new light-duty AFV that the fleet would have had to purchase under the original 1992 Energy Policy Act programs.

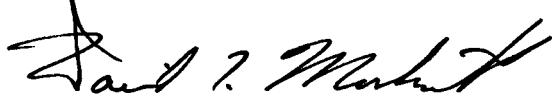
### **We recommend clarifications on DOE proposal for rollover or excess petroleum reduction to future years.**

We support DOE's proposal for rollover of excess petroleum reduction to future years contained in section 490.806. CalETC believes that this provision in the proposed rule adds greater flexibility to the program and will result in greater petroleum reductions over time.

We have suggestions on the use of AFV credits in the alternative compliance program. We support the proposal in section 490.805 (a) to allow the use of some alternative fuel vehicle credits to meet the petroleum reduction requirement. This approach has two benefits: added flexibility and a continued emphasis on the AFV aspects of the program. We would recommend that DOE state more clearly that unmet requirements under the Waiver program can be met by credits generated under subpart F. To achieve this clarity we would recommend that DOE delete the following language in section 490.805 (a)(1) "and demonstrate that it did everything under its control to meet its petroleum reduction requirement." We think this language is overly restrictive and impossible to demonstrate. This change would allow purchase of a limited number of credits to meet any possible shortfall under the Waiver. For example, if a fleet had a shortfall of 20 or 30 percent of its compliance obligation in a year, we believe this should be allowable. We respectfully request clarification that this type of flexibility is allowed in the final rule and subsequent guidance.

CalETC wants to thank DOE staff for the opportunity to provide these comments. If you would like to discuss these further, please do not hesitate to call me at (916) 551-1943 or 441-0702. We look forward to working with you further as this important program is moved forward.

Sincerely,

A handwritten signature in black ink, appearing to read "David L. Modisette". The signature is fluid and cursive, with a large initial "D" and a stylized "M".

DAVID L. MODISETTE  
Executive Director